ARIZONA GAME AND FISH DEPARTMENT
HABITAT PARTNERSHIP PROGRAM
HABITAT ENHANCEMENT AND WILDLIFE MANAGEMENT PROPOSAL

PROJECT INFORMATION

Project Title: Greasewood Prescribed Burn	**Project No. 14-506**
Region/GMU: Unit 31	**HPC: Safford**

Project Type: Prescribed Burn

Project Description:

The purpose for this application is to request funds for a maintenance burn of Phase 2 of the Stockton Pass Prescribed Burn.

The two phases are as follows:

Phase 1 (Stockton Burn): Treat the northwest section of the Greasewood Mountains with a prescribed fire. A total of 19,300 acres were scheduled to be burned. The goal was to remove 30-60% of woody vegetation with emphasis on mesquite and catclaw acacia removal, improved grass production, and increased browse regeneration. A desirable side effect of this project is that increased grass production also led to improved penetration of precipitation into the soil, which should aid in recharging of springs within the project area. Phase 1 has been implemented; ignitions occurred June 17th through June 22nd, 2007. Pre- and post-treatment vegetation monitoring via photo points have been implemented. Results are under ongoing monitoring. Two additional maintenance burns within the next decade were included in the planning for this area. This are received a maintenance burn in 2011, when a lightning ignition started the Grapevine Fire. Approximately 18,000 acres within this treatment block were burned a second time, adding to the overall removal of catclaw acacia.

Phase 2 (Greasewood Burn): In 2009, after the completion of the Stockton burn, the remaining area of the Greasewood Mountains (approximately 27,872 acres—see Map 1) were treated with prescribed fire. The vegetation goals were the same as above, with the focus being on reduction of encroaching woody species. Two maintenance burns were also included in the NEPA for this phase of the project. **This proposal is to complete a second burn within this treatment area.**

The eventual plan is for these burns to function as a portion of a series of mountain-wide burns to restore fire as a natural process in the Pinaleño Mountains. Based on the Grapevine Fire, the district is now willing to incorporate natural ignitions into treatments of this area. However, burns must remain fairly close in time in order to help natural ignitions be successful.

Wildlife Species to Benefit: Whitetail Deer (30%), Turkey (30%,), Mule Deer (30%), and Gambel's Quail (10%).

Possible Funding Partners: ADA, SCI, MDF, NWTF, QU, AAF.

Implementation Schedule:
Beginning: March 2015 (Phase 2, maintenance burn)

Completed: July 2009 (Phase 2)

PROJECT FUNDING

SBG Funds Requested: $40,000 for Phase 2 of the project.

Cost Share Funds: $460,000

Total Project Costs: $500,000 *Itemized on pages 5 and 6.

PARTICIPANT INFORMATION

Applicant: Kent C. Ellett **Telephone: 928-428-4150**	**Address:** **Safford Ranger District** **711 14th Ave, Suite D, Safford, AZ 85546**
AGFD Contact and Phone No. (If applicant is not AGFD personnel)	**Devin Skinner 928-651-7582**
USFS Contact and Phone No.	**Anne Casey, 928-348-1962**
Coordinated with: AGFD, Safford HPC, SE Arizona Sportsman's Group, US Fish & Wildlife Service, ADA, NWTF, QU and MDF.	
Applicant's signature:	**Date: 8/25/14**

SEND COMPLETED APPLICATIONS TO:
Mark Zornes, Game Branch
2221 W. Greenway Rd.
Phoenix, AZ 85023
mzornes@gf.state.az.us

NEED STATEMENT/PROBLEM ANALYSIS:

There is a need to improve wildlife habitat, restore native grassland associations, and reintroduce the natural fire cycle on Forest Service lands, particularly by reducing encroaching vegetation and improving native grass production on the Safford Ranger District.

The majority of both the Stockton Pass Burn (Phase I) and the Greasewood Burn (Phase II) areas are considered "former grassland" in the Coronado Diversity Report produced by The Nature Conservancy (2006; may be accessed at http://www.azconservation.org/sfap.htm). This designation is based on assessments that show there is now >15% canopy consisting of mesquite and juniper and/or >35% shrub cover. The implication is that type conversion to shrubland status is permanent or will require extended grazing rest (>40 years) to recover..

Prior to the implementation of the Stockton Pass and Greasewood Prescribed Fires, 11,710 acres within the Greasewood Mountains had been treated by prescribed burning through a series of fires called the Gillespie I, II, and III burns. Recent burning activities in the Stockton Pass area indicate that a combination of prescribed fire and good monsoon moisture can decrease the shrub component and start a trajectory toward more natural grassland conditions. These treatments led to increased grass and forb production, as well as earlier successional stages in the browse component. This area is important for white-tailed deer, Gould's wild turkeys, and mule deer, and it serves as a popular hunting area for Gambel's quail.

PROJECT OBJECTIVES:

1. Improve forage quality and quantity for white-tailed deer and mule deer.
2. Improve habitat for Mearn's Quail and Turkeys.
3. Restore natural grassland conditions.
4. Improve penetration of water into the soil to recharge springs.

The Safford Ranger District completed a Categorical Exclusion (CE) for the Stockton Pass Burn in May of 2007, and an additional categorical exclusion was written for the Greasewood Burn in 2008.

The CE authorizes treating 27,872 acres of grass and shrub associations and reducing shrub/woody species cover by 30-60%, with the potential for two additional maintenance burns.

HPC funds approved in the 2008-2009 funding cycle will provide approximately 30% of the implementation costs necessary to perform this prescribed burn. Approximately 5 days will be necessary to complete the blackline around the burn boundary. Aerial ignitions of the interior should take approximately 4 days.

The overall implementation costs for this burn average about $6.00 for each acre treated. Cost to the HPC group under the amount requested would cost approximately $1.40 per acre.

PROJECT LOCATION: Safford Ranger District, Coronado NF, Graham County, AZ. Project site is located in Township 10 South, Range 25 East, Sections 24, 25, 26, 34, 35, and 36; Township 10 South, Range 26 East, Sections 17-20 and 29-32; Township 11 South, Range 25 East, Sections 1-4 and 7-27; Township 11 South, Range 26 East, Sections 5-7, 18, 19, and 30. See attached maps.

LAND OWNERSHIP AT PROJECT SITE (Please state specifically if PRIVATE PROPERTY and provide landowner's name):

US Forest System Lands: Safford Ranger District, Coronado NF

IF PRIVATE PROPERTY, IS THERE A STEWARDSHIP AGREEMENT BETWEEN THE LANDOWNER AND THE DEPARTMENT?
Private landowners within the burn area will acquire permits for burning from the State Land Department.

HABITAT DESCRIPTION:
Elevations range from 4,180 feet to 7,092 feet above sea level.

The following vegetation associations occur within the Greasewood Burn boundary:

Madrean oak woodlands:
The oak woodlands are dominated by an overstory that varied from open savannas (see photo of Gillespie Wash below) to nearly chaparral (see photo of lower Cove Canyon above). Emory oak (*Quercus emoryi*) was the most common tree specie. Other tree species present are; Arizona white oak, (*Quercus arizonica*), alligator juniper (*Juniperus deppeana*) with lesser amounts of border pinyon (*Pinus discolor*) confined to the highest elevations. The understory shrub component is composed of Wright silktassel (*Garrya wrightii*), pointleaf manzanita (*Arctostaphylos pungens*), shrub live oak (*Quercus turbinella*), hollyleaf buckthorn (*Rhamnus ilicifolia)* and other several other species.

Upland desert grasslands:
In the upland grassland types, vegetation consists of a very scattered woodland component with beargrass (*Nolina microcarpa*) and Schott's yucca (*Yucca* X*schottii*) in the understory. On the lower slopes and the southern exposures, desert shrubs become more prominent, including honey mesquite (*Prosopis glandulosa*), acacia species and catclaw mimosa (*Mimosa aculeaticarpa* var. *biuncifera)*. A grassy understory component is common on most locations.

ITEMIZED USE OF FUNDS:

For Phase I (the Stockton Burn), the Range and Hazardous Fuels programs of the US Forest Service combined to spend approximately $70,000 for specialist reports, fieldwork, and preparation of NEPA documents. Hazardous fuels then paid for the implementation of the burn, with final costs being estimated at $175,000. The total cost for planning and implementing this burn was approximately $245,000.

For Phase II, an additional $75,000 is expected for the planning phases; this will be supplied by the Hazardous Fuels program within the Forest Service. An additional $140,000 will be supplied by the Hazardous Fuels program of USFS for implementing the project.

The estimated cost of implementing the prescribed burn is as follows:

Personnel:
4 crews (80 people total) - $1,000 per crew, per day for 10 days -- $40,000
5 engines (15 people total) - $ 500 per engine, per day for 10 days -- $25,000
Helicopter crew (manager plus 2) - $700 per day for 5 days -- $3,500
Traffic control crew (3 people) - $500 per day for 5 days – $2,500
Safety officer - $200 per day for 5 days - $1,000
Field observer - $200 per day for 10 days - $2,000
Burn boss - $275 per day for 10 days - $2,750
FMO - $300 per day for 10 days - $3,000

Equipment:
Helicopter flight time -- $1,000 per hour, 8-hour days for 4 days -- $32,000
Helicopter miscellaneous expenses - $750 per day for 5 days -- $3,750
Plastic Sphere Dispenser Aerial Ignition Device - $800

Other expenses:
Firing devices (ping-pongs, flares, etc.) -- $7,500
Fuel for drip torches - $2,000
Fuel for engines, chase trucks, crew cabs - $6,000
Traffic control equipment (sign and light rental) - $2,500
Per diem for traveling crews – 70 people - $30 per day – 5 days - $10,500
Fairgrounds rental (lodging for crews) - $500 per day for 10 days - $5,000

Burning during June in proper conditions for reduction of woody species generally requires hot, high-activity fires; these conditions tend to lead to spotting across the blackline, with need for additional back-up for suppression. We plan to have $15,000 available for use for additional personnel and equipment (such as tankers) for this possibility.

Total costs: $164,800

LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:
Forest Service to conduct burning.
SE Arizona Sportsman's Group: potential help with water (pipelines) or fencing repairs after burning?
AGFD, AES, NWTF, SCI, ADA, & MDF: We need this help with funding.

Current and potential cooperators and dollar amount are as follows:

$185,000	US Forest Service - Hazardous Fuels dollars -funds previously spent on Phase I.
$ 60,000	US Forest Service - Range dollars -funds previously spent on Phase I.
$215,000	US Forest Service – Hazardous Fuels dollars – estimated FS funds to be spent on analysis and implementation.
$ 40,000	**This HPC application for Phase II of the project**
$500,000	TOTAL *****

***** These above figures do not include the in-kind contribution of the permittees on the O-O, Stockton Pass, and Gillman allotments. These permittees removed their livestock in 2007 to facilitate the restoration efforts and will not restock until after a growing season has passed.
* The above figures also do not incorporate costs incurred for managing the Grapevine Wildfire that provided a second treatment to the Stockton Pass Burn area.

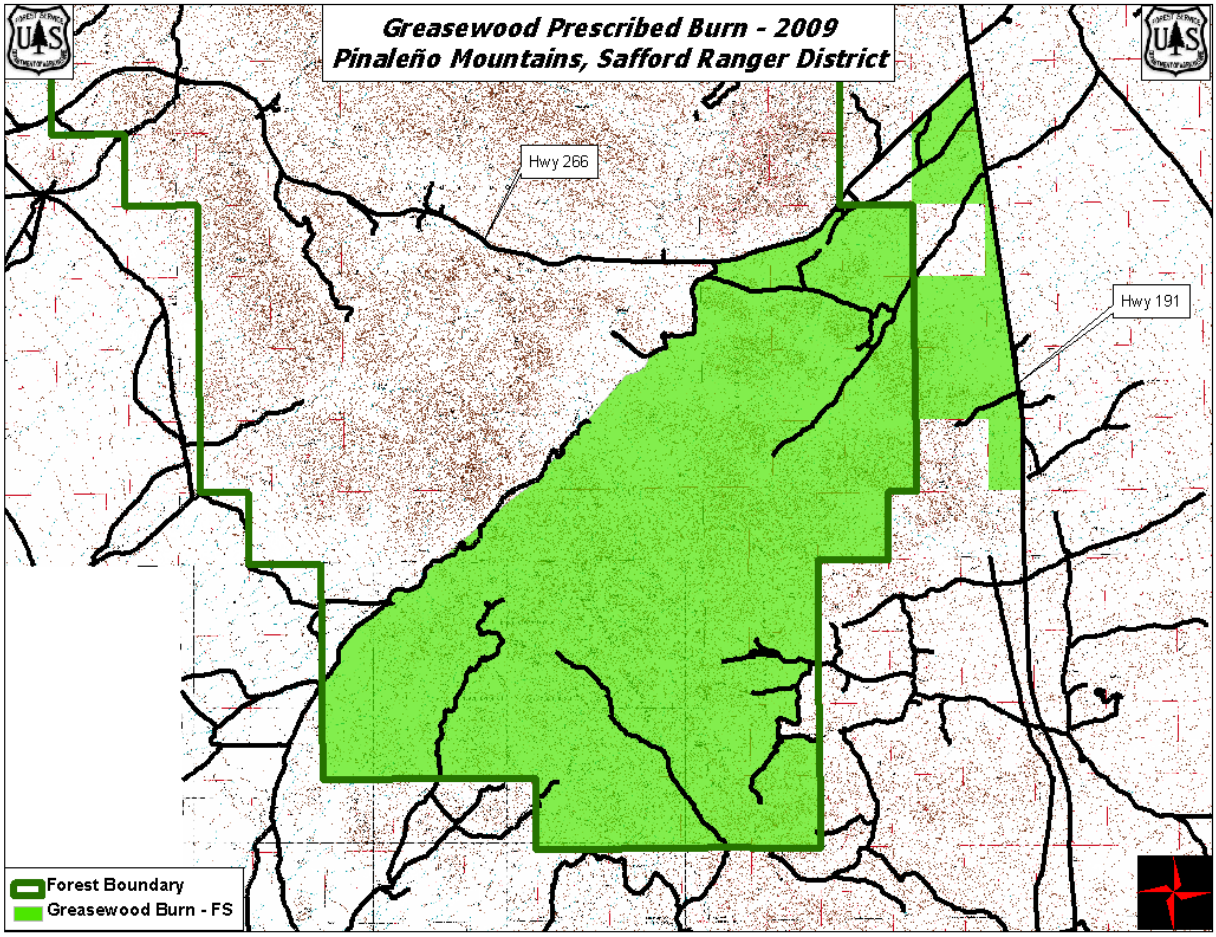
PROJECT MONITORING PLAN:
Photo points were placed prior to ignition of the fire. The University of Arizona has been doing ongoing field visits to complete post-fire range monitoring.

PROJECT MAINTENANCE: Two maintenance burns for the Stockton and Greasewood Burn areas have been planned into the NEPA documents. At this time, no additional funding is requested for the maintenance of these prescribed burns.

PROJECT COMPLETION REPORT TO BE FILED BY: Safford Ranger District, Coronado National Forest.

WATER DEVELOPMENT PROJECTS (see attached worksheet): NA

TREE SHEARING (AGRA-AXE, PUSH) PROJECTS (see attached worksheet): NA


Greasewood Prescribed Burn - 2009
Pinaleño Mountains, Safford Ranger District
Hwy 266
Hwy 191
Forest Boundary
Greasewood Burn - FS